

HYDROTREATING OF COMPONENTS FOR REFINERY BLENDING OF TRANSPORTATION FUELS

ABSTRACT OF THE INVENTION

5 Economical processes are disclosed for the production of
components for refinery blending of transportation fuels by
selective hydrogenation of sulfur-containing and/or nitrogen-
containing organic compounds contained in mixtures of
hydrocarbons which are liquid at ambient conditions. Integrated
10 hydrotreating processes of this invention advantageously provide
their own source of high-boiling hydrogenation feedstock derived,
for example, by fractionation of hydrotreated petroleum distillates.
The high-boiling hydrogenation feedstock consisting essentially of
material boiling between about 200° C. and about 425° C. and
15 having a sulfur content up to about 2,500 ppm, is contacted with a
gaseous source of dihydrogen at hydrogenation conditions in the
presence of a hydrogenation catalyst which exhibits a capability to
enhance the incorporation of hydrogen into one or more of the
sulfur-containing and/or nitrogen-containing organic compounds
20 and under conditions suitable for hydrogenation of one or more of
the sulfur-containing organic compounds, thereby producing a
product comprising a mixture of hydrocarbons and other organic
compounds and having a sulfur content less than about 35 ppm of
sulfur. Advantageously, all or a portion of the product is blended
25 with a low-boiling fraction of a hydrotreated distillate to produce a
distillate fuel having a sulfur content of less than 15 ppm.

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